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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/932,866	08/17/2001	Gerard Chauvel	TI-31347	6569

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EXAMINER	
KIM, HONG CHONG	

ART UNIT	PAPER NUMBER
2185	

DATE MAILED: 02/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/932,866	CHAUVEL ET AL.	
	Examiner	Art Unit	
	Hong C. Kim	2185	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 January 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *8-11* is/are allowed.

6)☒ Claim(s) *1-7 and 12-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Detailed Action

1. Claims 1-16 are presented for examination. This office action is in response to the RCE filed on 01/17/06.

2. Applicants are reminded of the duty to disclose information under 37 CFR 1.56.

The examiner requests, in response to this Office action, any reference(s) known to qualify as prior art under 35 U.S.C. sections 102 or 103 with respect to the invention as defined by the independent and dependent claims. That is, any prior art (including any products for sale) similar to the claimed invention that could reasonably be used in a 102 or 103 rejection. This request does not require applicant to perform a search. This **request** is not intended to interfere with or go beyond that **required** under 37 C.F.R. 1.56 or 1.105.

The request may be fulfilled by asking the attorney(s) of record handling prosecution and the inventor(s)/assignee for references qualifying as prior art. A simple statement that the query has been made and no prior art found is sufficient to fulfill the request. Otherwise, the fee and certification requirements of 37 CFR section 1.97 are waived for those documents submitted in reply to this request. This waiver extends only to those documents within the scope of this request that are included in the application's first complete communication responding to this requirement. Any supplemental replies subsequent to the first communication responding to this request and any information disclosures beyond the scope of this are subject to the fee and certification requirements of 37 CFR section 1.97.

In the event prior art documentation is submitted, a discussion of relevant passages, figs. etc. with respect to the claims is requested. The examiner is looking for specific references to 102/103 prior art that identify independent and dependent claim limitations. Since applicant is most knowledgeable of the present invention and submitted art, his/her discussion of the reference(s) with respect to the instant claims is essential. **A response to this inquiry is greatly appreciated.**

The examiner also requests, in response to this Office action, support be shown for language added to any original claims on amendment and any new claims. That is, indicate support for newly added claim language by specifically pointing to page(s) and line number(s), in the specification and/or drawing figure(s). This will assist the examiner in prosecuting the application.

3. Applicants are requested to include the status of the related Foreign or U.S. applications (i.e. 09/932,556) or patents in the CROSS-REFERENCE TO RELATED APPLICATIONS section and in any other corresponding area in the specification accordingly (e.g., U.S. Patent Application Serial No. ##/###,### filled Sept. 07, 1990, now abandoned; ..., now U.S. Patent #,###,### issued Jan. 01, 1994; or This application is a continuation of Serial Number ##/###,###, filed on December 01, 1990, now abandoned; ...etc.).

DOUBLE-PATENTING

4. The nonstatutory double patenting rejection is based on a judicially created

doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1-7 and 12-16 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-19 of U.S. Patent No. 6,684,280 in view of Lim, US Patent No. 6,430,640.

As to claim1, *USP* 6,684,280 claims a method for prioritizing access to a shared resource in a digital having a plurality of devices vying for access to the shared resource, comprising the steps of: initiating an access request by each of the plurality of devices; associating two priority values (access priority in claim 17 and task priority in

claim 18) along with each access request from each device; and arbitrating for access to the shared device by using the priority values associated with each single access (claims 17 and 18). Although USP 6,684,280 discloses priority values (claim 17) and task priority and software priority (claim 18), USP 6,684 does not specifically disclose the step of arbitrating a higher of the two priority values.

Lim discloses a method for prioritizing access to a shared resource in a digital having a plurality of devices vying for access to the shared resource (col. 14 lines 55+) comprising the steps of: initiating an access request by each of the plurality of devices (col. 14 lines 8-12) and arbitrating a higher of the two priority values (col. 14 line 11 and col. 15 lines 46 –56, appended processor ID to the priority value reads on this limitation) provided with a single access (Fig. 1 Ref. 11 and col. 2 line 64 thru col. 3 lines 11) for the purpose of providing a fairness to each requested device, efficiency to the system busy 100 percent of the time, response and turnaround times to minimum and maximum throughput.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the steps of providing arbitrating a higher of the two priority values of Lim into the USP 6,684,280 for the advantages stated above.

As to claim 7, the claim 7 encompasses the same scope of the invention as that of the claim 1. Therefore, the claim 7 is rejected for the same reason as the claim 1.

As to claims 2-6 and 12-16, claims are rejected because they incorporate the

defect of the parent claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 1 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Lim US Patent No. 6,430,640.

As to claim 1, Lim discloses a method (col. 13 lines 33-35) for prioritizing access to a shared resource in a digital having a plurality of devices vying for access to the shared resource (Fig. 14 ref. 408) comprising the steps of: initiating an access request by each of the plurality of devices (Fig. 13 Ref. 400); associating two priority values (col. 14 lines 9-12 and col. 15 lines 46 –56, appended processor ID to the priority value reads on this limitation) along with each access request (col. 6 lines 25-36); and

arbitrating for access to the shared device by using the higher of priority values associated with each single access request (Fig. 1 Ref. 11 and col. 2 line 64 thru col. 3 lines 11).

As to claim 7, Lim discloses a digital system (Fig. 14) comprising: a shared resource (Fig. 14 Ref. 408); a plurality of devices (Fig. 13 Ref. 400) connected to access the shared resource, wherein each device has a request output (col. 6 lines 25-36) and circuitry for providing two separate variable priority values (col. 14 lines 9-12 and col. 15 lines 46 –56, appended processor ID to the priority value reads on this limitation and since added values are not constant, in other words, values are depend on the processor ID and priority value) and arbitration circuitry (Fig. 14 Ref. 404, Fig. 1 Ref. 11 and col. 2 line 64 thru col. 3 lines 11) operates according to a higher of the two priority values provided with each single access request (col. 6 lines 25-36).

Claim Rejections - 35 USC ' 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lim US Patent No. 6,430,640 in view of Holt et al. (Holt) US Patent No. 5,263,163.

As to claim 14, Lim discloses the invention as claimed above. Lim further discloses the step of providing an access priority value (col. 15 lines 35-55) with each request that is responsive to a task currently being executed by the device, however, Lim does not specifically discloses providing an address space priority value with each request that is responsive to an address specified by each access request.

Holt discloses providing an address space priority value with each request that is responsive to an address specified by each access request (col. 21 lines 10-18) for the purpose of providing a fairness to each requested device, efficiency to the system busy 100 percent of the time, response and turnaround times to minimum and maximum throughput.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate an address space priority value with each request that is responsive to an address specified by each access as shown in Holt into the invention of Lim for the advantages stated above.

Allowable Subject Matter

8. Claims 2-6, 12-13, and 15-16, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and overcome claim objections and double patenting rejections.

9. Claims 8-11 are allowed.

Response to Arguments

10. Applicant's arguments filed on 1/17/06 have been fully considered but they are not persuasive.

Applicant's argument on pages 7+ that the reference does not disclose two priority values is not considered persuasive.

USP 6,684,280 discloses two priority values (access priority in claim 17 and task priority in claim 18). And support can be in Figure 4, a respective access priority value (1st priory value, see Fig. 4 Ref. 1410) is provided in responsive to respective software priority state of the respective program module, wherein the program module containing a task priory value (2nd priority value, see Fig. 4 Ref. 1412). Lim also discloses two priority values (col. 14 lines 9-12 and col. 15 lines 46 –56, appended processor ID to the priority value reads on this limitation).

Applicant's argument on pages 7+ that the reference does not disclose variable priory values is not considered persuasive.

Lim also discloses variable priority values (col. 14 lines 9-12 and col. 15 lines 46 –56, appended processor ID to the priority value reads on this limitation since created value is not constant, in other words, created value depends on combination of processor ID value and priority value).

Applicant's argument on pages 7+ that the reference does not disclose arbitrating two priority values associated with each single access request is not considered persuasive.

USP 6,684,280 discloses arbitrating two priority values asociated with each single access request (access priority in claim 17 and task priority in claim 18). Lim also discloses arbitrating two priority values associated with each single access request (col. 14 lines 9-12 and col. 15 lines 46 -56, appended processor ID to the priority value reads on this limitation). Specifically, Lim discloses priorities are determined based on respective priority value however, if the value is same between competing processors, processor ID number Is used to determine higher priority request (col. 15 lines 30-56), in other words, priority value in combination with processor ID are used to determine higher priority request and arbitrate tasks. This process is similar to the given application (see pages 15-17 or blocks 30-34).
Therefore broadly written claims are disclosed by the references cited.

Also it appears that column 5 row 3 in table shown on page 9 should be changed to – task—from 'address' since processor2 task priority has the highest priory.

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

2. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) days from the mail date of this letter. Failure to respond within the period for response will result in **ABANDONMENT** of the application (see 35 USC 133,

MPEP 710.02, 710.02(b)).

3. When responding to the office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections. See 37 C.F.R. ' 1.111(c).

4. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist examiner to locate the appropriate paragraphs.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hong Kim whose telephone number is (571) 272-4181. The examiner can normally be reached on M-F 9:00 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim can be reached on (571) 272-4182. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 whose telephone number is (571) 272-2100.

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

7. **Any response to this action should be mailed to:**

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

or faxed to TC-2100:
(703) 872-9306

Hand-delivered responses should be brought to the Customer Service Window (Randolph Building, 401 Dulany Street, Alexandria, VA 22314).

H Kim
Primary Patent Examiner
February 8, 2006